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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,165	12/05/2003	Krishna Prasad Chitrapura	JP920030160US1	8575

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EXAMINER
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VO, HUYEN X

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/729,165	<b>Applicant(s)</b> CHITRAPURA ET AL.	
	<b>Examiner</b> HUYEN X. VO	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-10,12,13,16-19,29-35 and 37-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-10,12,13,16-19,29-35 and 37-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 10, 12-13, 16-19, 29-30, 32, and 42 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

3. Claim 10, 12-13, 16-19, 29-30, 32, and 42 are drawn to a “program” *per se* as recited in the preamble (“*storage device*” and “*storage medium*” may include carrier waves as suggested in the specification) and as such is non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical “things.” They are

neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

### ***Claim Objections***

4. Claim 42 is objected to because of the following informalities: “The method of claim 10” should be amended to “The program storage device of claim 10”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. Claims 10, 12-13, 16-19, 29-30, 32, and 42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no detailed description of the term “program storage device readable by machine” in the disclosure. The specification merely mentions of the term “storage device” and “storage medium” which may include carrier waves. Keep in mind that computer program codes can be encoded or stored on carrier waves for transmission to a receiving system.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 6-10, 12-13, 16-19, 29-30, 33-35, and 37-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Subasic et al. (US 6721734).

8. Regarding claims 1, 10, and 33, Subasic et al. disclose a method and program storage device of analyzing opinions in a text document, said method comprising:

establishing a predetermined set of regular expressions, each regular expression of said predetermined set of regular expressions corresponding to a specific parts-of-speech (POS) tag sequence (*Affect lexicon 104 in figure contains all the regular expressions or words or standard word models for used in comparison with words extracted from the input text; and/or referring to col. 3, lines 37-54*);

inputting and parsing said text document to provide a plurality of POS tag sequences (*input document 100 is parsed and POS is tagged in step 102 in figure 2*);  
and

matching said predetermined set of regular expressions to said plurality of POS tag sequences from said text document by to provide one or more extracted opinions (*Fuzzy Semantic Tagging 112 and affect lexicon 104 in figure 2 and/or referring to col.*

3, line 55 to 5, line 60; comparing the input words against words in affect lexicon 104 to determine emotional categories (e.g. figure 5)).

lexically analyzing each word of said one or more extracted opinions to group said one or more extracted opinions into clusters of extracted opinions (*col. 5, line 61 to col. 6, line 7*); and

marking said one or more extracted opinions in said text document with classification tags, wherein said classification tags correspond to said clusters of extracted opinions (*col. 7, lines 45-50, each affect category is tagged*).

9. Regarding claims 2-3, 6-9, 12-13, 16-19, 29-30, and 34-35, and 37-40, Subasic et al. further wherein said clusters of extracted opinions comprise any of positive and negative clusters of extracted opinions, and neutral (*col. 6, lines 1-7*), organizing said clusters of extracted opinions into groups, wherein said one or more extracted opinions within each of said groups comprises a similar topic (*col. 6, lines 1-7, grouping categories with high similarity together*), wherein said lexically analyzing each word of said one or more extracted opinions comprises accessing a natural language database to group said one or more extracted opinions into said clusters of extracted opinions (*col. 6, lines 1-7, grouping categories with high similarity together*), wherein said lexically analyzing each word of said one or more extracted opinions comprises identifying any of a synonym and an antonym for said each word of said one or more extracted opinions (*col. 5, lines 61-67, thesaurus is used*), wherein said lexically analyzing each word of said one or more extracted opinions comprises determining of a

morphological stem for said each word of said one or more extracted opinions  
(*normalization in step 102 in figure 2 and/or referring to col. 3, lines 18-36*), and marking  
said one or more extracted opinions in said text document with classification tags,  
wherein said classification tags correspond to said clusters of extracted opinions (*col. 3,  
lines 49 to col. 5, line 67*).

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all  
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 31-32 and 41-42 are rejected under 35 U.S.C. 103(a) as being  
unpatentable over Subasic et al. (US 6721734) in view of Chase (US 6332143).

12. Regarding claims 31-32 and 41-42, Subasic et al. fail to specifically disclose the  
step of graphically displaying said clusters of extracted opinions, wherein said  
graphically displaying comprises displaying relative proportions of said extracted  
opinions in said clusters of extracted opinions, and wherein said graphically displaying  
comprises displaying said clusters of extracted opinions using a bar-chart. However,  
Chase teaches the step of graphically displaying said clusters of extracted opinions,  
wherein said graphically displaying comprises displaying relative proportions of said  
extracted opinions in said clusters of extracted opinions (*figure 5*), and wherein said

graphically displaying comprises displaying said clusters of extracted opinions using a bar-chart (*figure 5*).

Since Subasic et al. and Chase are analogous in art because they are from the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Subasic et al. by incorporating the teaching of Chase in order to provide the user a visual summary of emotional characteristics of the text document.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hu et al. (US 7234942) is considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN X. VO whose telephone number is (571)272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Huyen X Vo/  
Primary Examiner, Art Unit 2626

4/4/2008

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